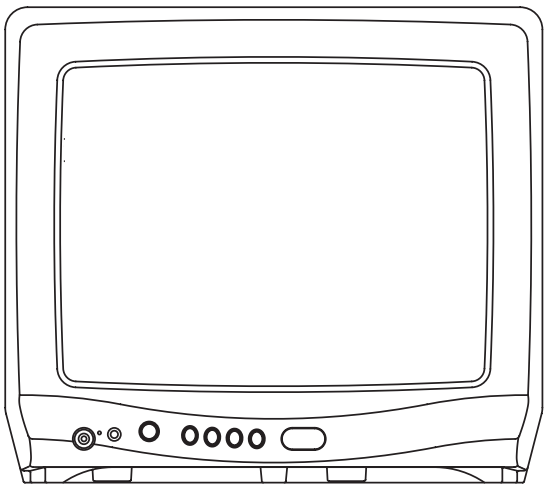
Pacific

PTV3606

SERVICE MANUAL

COLOR TELEVISION RECEIVER



ORIGINAL
MFR'S VERSION A

Design and specifications are subject to change without notice.

WHEN REPLACING EEPROM (MEMORY) IC

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to TABLE 1.

INI	+0	+1	+2	+3	+4	+5	+6	+7	+8	+9	+A	+B	+C	+D	+E	+F
00	---	00	00	00	00	19	60	40	00	41	00	01	03	00	00	00
10	10	00	80	80	80	00	00	---	---	---	---	---	---	---	---	---

Table 1

1. Enter DATA SET mode by setting VOLUME to minimum.
2. While holding down VOLUME button on front cabinet, press key 6 on remote control for more than 2 seconds.

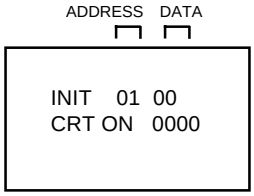


Fig. 1

3. ADDRESS is now selected and should "blink". Using the VOL. +/- button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
4. Press ENTER to select DATA. When DATA is selected, it will "blink".
5. Again, step through the DATA using VOL. +/- button until required DATA value has been selected.
6. Pressing ENTER will take you back to ADDRESS for further selection if necessary.
7. Repeat steps 3 to 6 until all data has been checked.
8. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

After the data input, set to the initializing of shipping.

9. Turn POWER on.
10. While holding down VOLUME button on front cabinet, press key 1 on remote control for more than 2 seconds.
11. After the finishing of the initializing of shipping, the unit will turn off automatically.

The unit will now have the correct DATA for the new MEMORY IC.

ELECTRICAL ADJUSTMENTS

1. BEFORE MAKING ELECTRICAL ADJUSTMENTS

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

- Use an isolation transformer when performing any service on this chassis.
- Before removing the anode cap, discharge electricity because it contains high voltage.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor for a heat sink, apply the silicon grease **(YG6260M)** on the contact section of the heat sink. Befor applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor.)

Prepare the following measurement tools for electrical adjustments.

1. Oscilloscope
2. Digital Voltmeter
3. Pattern Generator

On-Screen Display Adjustment

1. In the condition of NO indication on the screen. Press the VOL. DOWN button on the set and the Channel button **(9)** on the remote control for more than 2 seconds to appear the adjustment mode on the screen as shown in **Fig. 1-1**.

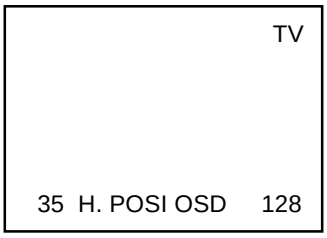


Fig. 1-1

2. Use the Channel UP/DOWN button or Channel button **(0-9)** on the remote control to select the options shown in **Fig. 1-2**.
3. Press the MENU button on the remote control to end the adjustments.

NO.	FUNCTION	NO.	FUNCTION
00	CUT OFF	20	TINT
01	RF AGC	21	SHARP
02	AGC GAIN	22	CONT CENT
03	R DRIVE	23	CONT MAX
04	R CUT OFF	24	CONT MIN
05	G DRIVE	25	COLOR CENT
06	G CUT OFF	26	COLOR MAX
07	B DRIVE	27	COLOR MIN
08	H POSI 50	28	M R CUT OFF
09	V POSI 50	29	M G CUT OFF
10	V POSI 60	30	M B CUT OFF
11	V SIZE 50	31	CVBS OUT
12	V SIZE 60	32	APR THR
13	VCO COASE	33	BELL
14	VCO FINE	34	BANDPASS
15	-	35	H POSI OSD
16	-	36	V POSI OSD
17	BRIGHT CENT	37	H POSI TXT
18	BRIGHT MAX	38	V POSI TXT
19	BRIGHT MIN	39	H POSI 60

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: AGC VOLTAGE

1. Place the set with Aging Test for more than 15 minutes.
2. Receive the UHF (63 ± 1dB).
3. Connect the digital voltmeter between the **TP002** and **the (GND) of TU001**.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(01)** on the remote control to select "RF AGC".
5. Press the VOL. UP/DOWN button on the remote control until the digital voltmeter is 2.10 ± 0.05V.

2-2: CUT OFF

1. Place the set with Aging Test for more than 15 minutes.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(00)** on the remote control to select "CUT OFF".
4. Adjust the **Screen Volume** until a dim raster is obtained.

2-3: WHITE BALANCE

NOTE: Adjust after performing CUT OFF adjustment.

1. Place the set with Aging Test for more than 10 minutes.
2. Receive the white 100% signal from the Pattern Generator.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(04)** on the remote control to select "R CUT OFF".
5. Using the VOL. UP/DOWN button on the remote control, adjust the R CUT OFF.
6. Press the CH. UP/DOWN button on the remote control to select the "R DRIVE", "G DRIVE", "G CUT OFF" or "B DRIVE".
7. Using the VOL. UP/DOWN button on the remote control, adjust the R DRIVE, G DRIVE, G CUT OFF or B DRIVE.
8. Perform the above adjustments 6 and 7 until the white color is looked like a white.

2-4: FOCUS

1. Receive the monoscope pattern.
2. Turn the Focus Volume fully counterclockwise once.
3. Adjust the **Focus Volume** until picture is distinct.

2-5: CONSTANT VOLTAGE

1. Place the set with Aging Test for more than 15 minutes.
2. Using the remote control, set the brightness and contrast to normal position.
3. Connect the digital voltmeter to **TP501**.
4. Set condition is AV MODE without signal.
5. Adjust the **VR501** until the digital voltmeter is 135 ± 0.5V.

2-6: VERTICAL LINEARITY

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Adjust the **VR420** until the SHIFT quantity of the OVER SCAN on upside and downside becomes minimum.

ELECTRICAL ADJUSTMENTS

2-7: HORIZONTAL POSITION

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(08)** on the remote control to select "H POSI(50)".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes minimum.
5. Receive the monoscope pattern of NTSC.
6. Using the remote control, set the brightness and contrast to normal position.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(39)** on the remote control to select "H POSI(60)".
8. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on right and left becomes minimum.

2-8: VERTICAL SIZE

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(11)** on the remote control to select "V SIZE(50)".
4. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes 8 ± 3%.
5. Receive the monoscope pattern of NTSC.
6. Using the remote control, set the brightness and contrast to normal position.
7. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(12)** on the remote control to select "V SIZE(60)".
8. Press the VOL. UP/DOWN button on the remote control until the SHIFT quantity of the OVER SCAN on upside and downside becomes 8 ± 3%.

2-9: BRIGHT CENT

1. Place the set with Aging Test for more than 15 minutes.
2. Receive the monoscope pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(17)** on the remote control to select "BRIGHT CENT".
5. Press the VOL. UP/DOWN button on the remote control until the white 25% is starting to be visible.
6. Receive the monoscope pattern. (Audio Video Input)
7. Press the AV button on the remote control to set to the AV mode. Then perform the above adjustments 3~5.

2-10: CONT CENT

1. Place the set with Aging Test for more than 15 minutes.
2. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(22)** on the remote control to
3. select "CONT CENT".
4. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "30".
5. Press the AV button on the remote control to set the AV mode. Then perform the above adjustments 1, 2.

2-11: COLOR CENT

1. Receive the color bar pattern. (RF Input)
2. Connect the oscilloscope to **TP023**.
3. Using the remote control, set the brightness, contrast and color to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(25)** on the remote control to select "COLOR CENT".
5. Adjust the VOLTS RANGE VARIABLE knob of the oscilloscope until the range between white 100% and 0% is set to 5 scales on the screen of the oscilloscope.
6. Press the VOL. UP/DOWN button on the remote control until the red color level is adjusted to 85 ± 10% for the white level. **(Refer to Fig. 2-2)**
7. Receive the color bar pattern. (Audio Video Input)
8. Press the AV button on the remote control to set the AV mode. Then perform the above adjustments 2~6.

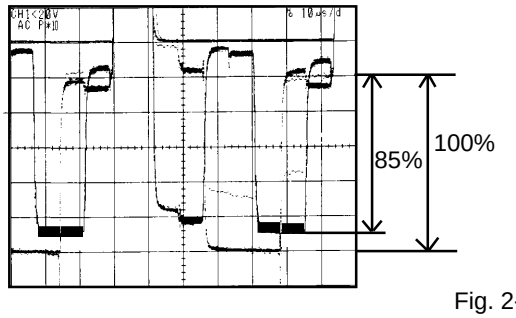


Fig. 2-2

2-12: VCO COASE/VCO FINE

1. Connect the oscillator (39.5MHz) to between the **TP003** and **the (GND) of TU001**.
2. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(13)** on the remote control to select "VCO COASE".
3. Press the VOL. UP/DOWN button on the remote control until the "+" appear on the screen.
4. Press the CH UP button once to set to "VCO FINE" mode.
5. Press the VOL. UP/DOWN button on the remote control to select the 4 step down point from the upper limit on the "+".
   (Example: In case of the "+" point 30~41, select 37.)

2-13: VERTICAL POSITION

1. Receive the monoscope pattern.
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(09)** on the remote control to select "V POSI(50)".
4. Check if the step No. V. POSI is "08".
5. Adjust the **VR401** until the horizontal line becomes fit to notch of the shadow mask.

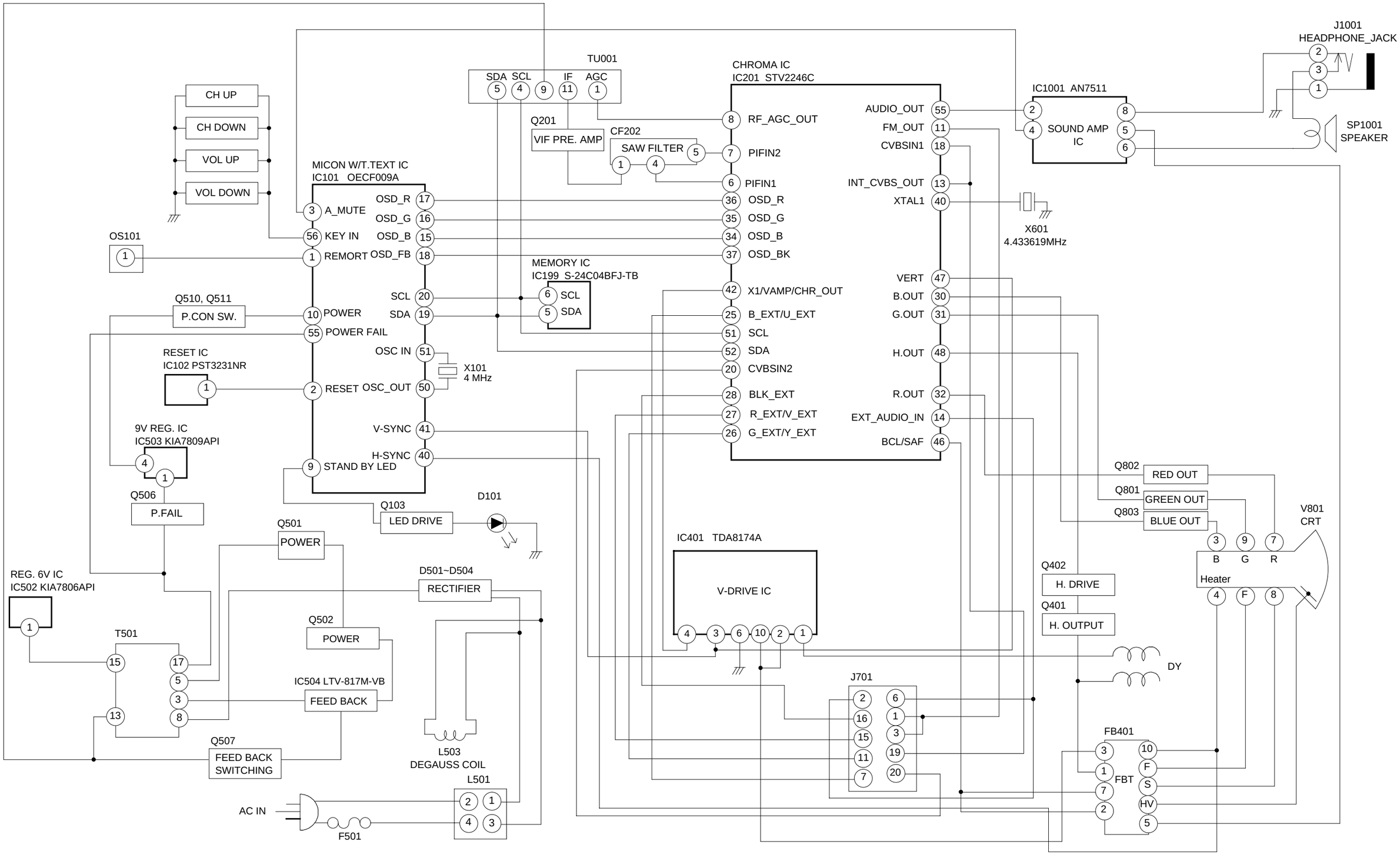
ELECTRICAL ADJUSTMENTS

2-14 : Confirmation of Fixed Value (Step No.)

Please check if the fixed values of the each adjustment items are set correctly referring below.

NO.	FUNCTION	RF	AV
02	AGC GAIN	00	---
04	R CUTOFF	00	---
06	G CUTOFF	00	---
07	B DRIVE	31	---
10	V POSI 50/60	08	---
18	BRIGHT MAX	37	37
19	BRIGHT MIN	10	10
20	TINT	32	32
21	SHARP	04	04
23	CONT MAX	50	50
24	CONT MIN	10	10
26	COLOR MAX	39	39
27	COLOR MIN	14	14
30	MB CUTPOFF	80	---
31	CVBS OUT	16	---
32	APR THR	04	---
33	BELL	10	---
34	BANDPASS	06	---
35	H POSI OSD	128	---
36	V POSI OSD	50	---
37	H POSI TXT	122	---
38	V POSI TXT	58	---

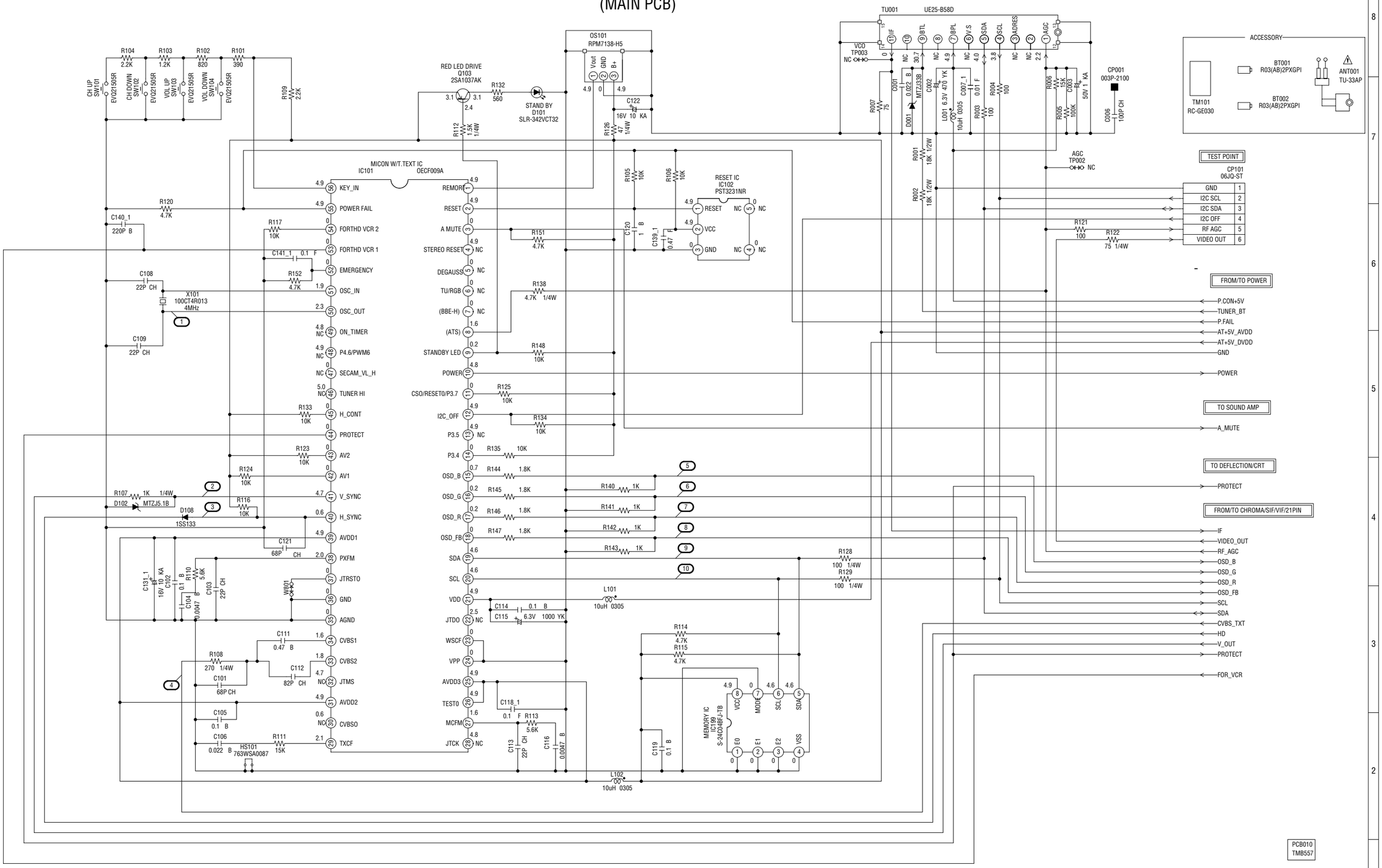
BLOCK DIAGRAM



E-1

E-2

MICON/TUNER SCHEMATIC DIAGRAM
(MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

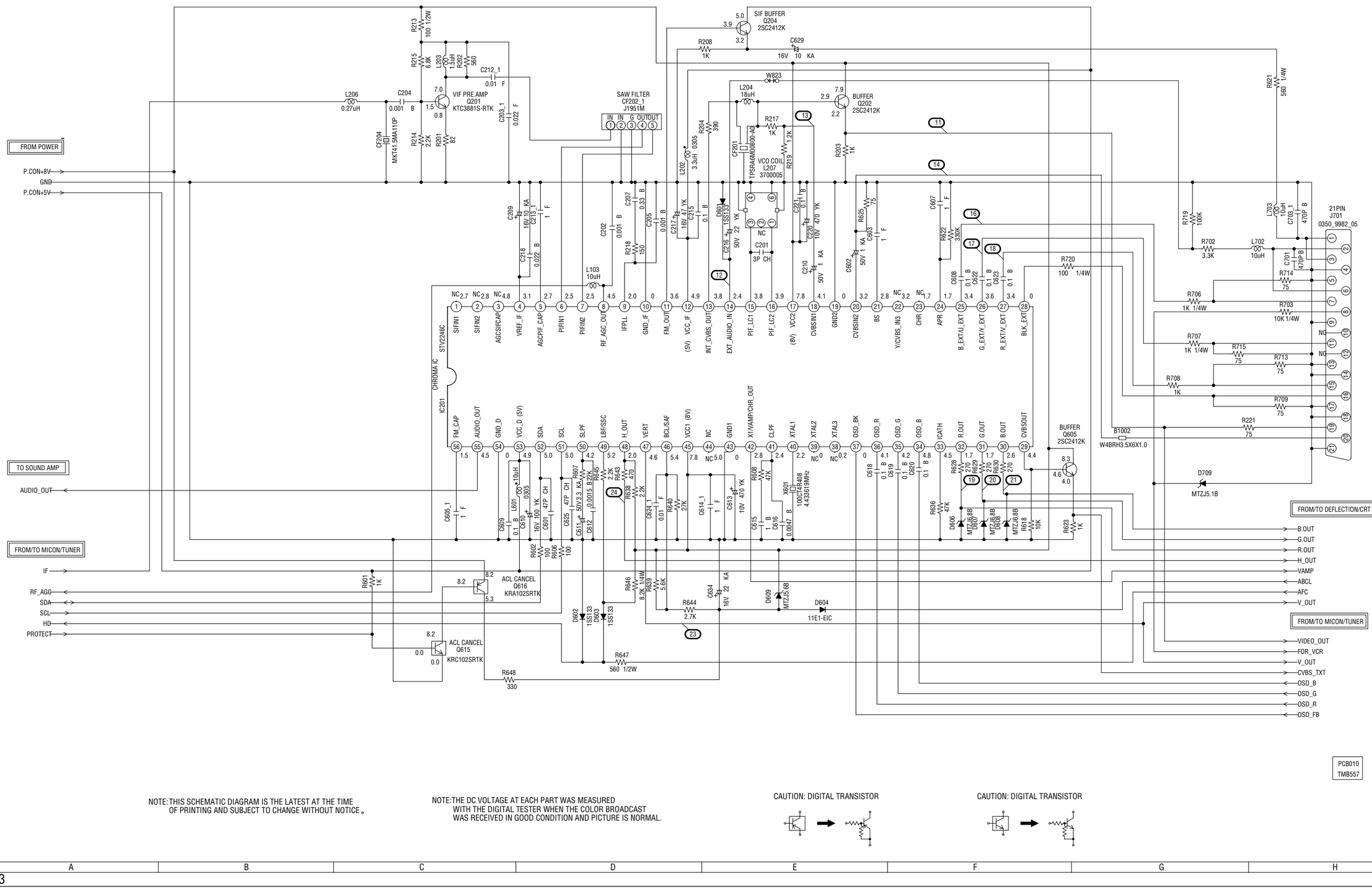
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

CHROMA/SIF/VIF/21PIN SCHEMATIC DIAGRAM

(MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

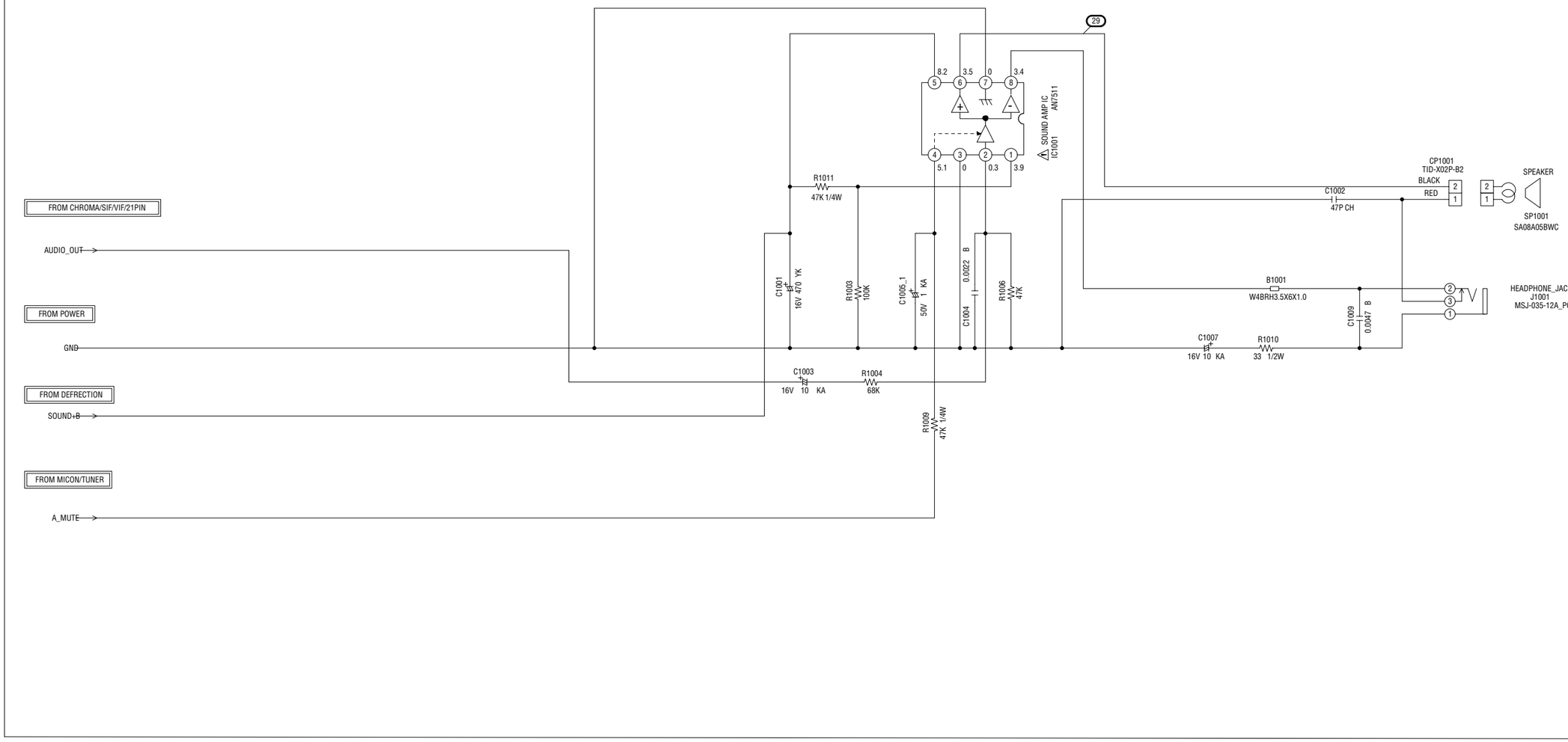
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR

SOUND AMP/FRONT AV SCHEMATIC DIAGRAM

(MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

DEFLECTION/CRT SCHEMATIC DIAGRAM (MAIN PCB)

FROM/TO CHROMA/SIF/VIF/21PIN

R.OUT
G.OUT
B.OUT
VAMP
V_OUT
ABCL
H_OUT
AFC

V-DRIVE IC IC401 TDA8174A

POWER OUTPUT 1 14.5
OUTPUT STAGE Vs 2 23.0
TRIGGER INPUT 3 5.0
HEIGHT ADJ. 4 6.4
Vref. DECOUP. 5 4.4
GND 6 0.0
RAMP GENERATOR 7 12.0
BUFFER OUTPUT 8 12.0
INVERTING INPUT 9 4.4
Vs 10 25.0
FB. GENERATOR 11 1.7

R404 330K +-1% M
R408 1K 1/4W
R405 390K +-1% M
C406 16V 10 KA
C412 0.047 MMTV
R412 8.2K 1/4W
C413 0.082 B
C414 35V 100 YK
R429 5.6 1W
R402 1K 1/2W
C403 35V 470 YK
D403 11E1-EIC

CP802A B2013H02-6P
PROTECT 1
CUT OFF 2
GND 3
R.OUT 4
G.OUT 5
B.OUT 6

CP802B B2013H02-6P
1 PROTECT
2 CUT OFF
3 GND
4 R.OUT
5 G.OUT
6 B.OUT

CP803A B2013H02-4P
GND 1
HEATER 2
NC
180V 4

CP803B B2013H02-4P
1 GND
2 HEATER
3 NC
4 180V

FROM/TO CRT
FROM/TO DEFLECTION

W815 0.5Q

GREEN OUT Q801 KTC3207
RED OUT Q802 KTC3207
BLUE OUT Q803 KTC3207
3.2
100.6 2.7
98.4 2.7
95.4 2.7
D807 1SS133
D808 1SS133
D809 1SS133
R809 1.2K 1/4W
R811 1.2K 1/4W
R814 1.2K 1/4W
R813 270 1/4W
R815 270
R816 270
C804_1 470P CH
C805 470P B
C806 470P B

FROM MICOM/TUNER
PROTECT
PROTEC Q403 KRC102SRTK
2.2
0.0
0.0

R406 6.8K 1/4W
R420 10K 1/4W
R417 3.3K +-1% M
V_LIN VR420 470
R419 1.2K
C417 50V 10 YK
C418 25V 2200 MHE
R416 2.2 1/2W
C422 100V 0.22 MMTS
R407 1.2 1/2W
R403 1K 1/2W
R410 680 1/2W
V_POS VR401 2.2K
R409 680 1/2W
C448 250V 10 YK
R422 1.5K 1/4W
HS401 763WSAA013

CD801 SM1573-001
CP801 003P-2100
(to CP001)

V801 A34JXV70X53N45 (CPJ370BVBK1U-TC)
CP401 A1561WV2-A5P
ANODE
FOCUS
SCREEN

R803 15K 1W
R802 2.7K 1/4W
R805 15K 1W
R804 2.7K 1/4W
R807 15K 1W
R806 2.7K 1/4W

T401 ETH09K14BZ
H.OUTPUT
C437 250V 0.39 PMS
C423 250V 2.2 MHE
L401 4.7mH 0909
R447 68 1/2W
H.DRIVE Q402 2SC1627_Y
27.0
0.3
0
R446 470 1/2W
C446 50V 22 YK
C440 100V 0.01 MMTS
HS402 763WSA0017
R427 100 1/4W
TT2140LS-YBC11
130
0
C443 1.25KV 0.0082 CMPF
D406 11E1-EIC
R424 180 1W

FROM POWER
P.CON+8V
GND
H.DRV+B
+B

B_SHORT

TO SOUND AMP/FRONT AV
SOUND+B

C401 220P CH

FB401_1 FNI-14B002
131.7 COL 1
135 VIDEO 6
135 B+ 2
NC AFC 9
GND 8
NC E12 4
4.9 E25 3
25.2 HV
F
S
GND 11
ABL 5.6 7
HEATER 6.3 10
16.8 5

D405 AU02A-EIC
D410 AU02A-EIC
R411_2 150 2W
D407 11E1-EIC
R418_2 6.8 3W
D404 AU02A-EIC
C404 10V 470 YK
R445 220K 1/4W
D414 11E1-EIC
C435 100V 0.1 MMTS
R421 47K 1/4W

CP806_1
C819 2KV 0.001 B
J801 ISMS01S
6.4
96.4
101.6
99.6

PCB110 TCB416
PCB010 TMB557

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

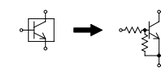
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

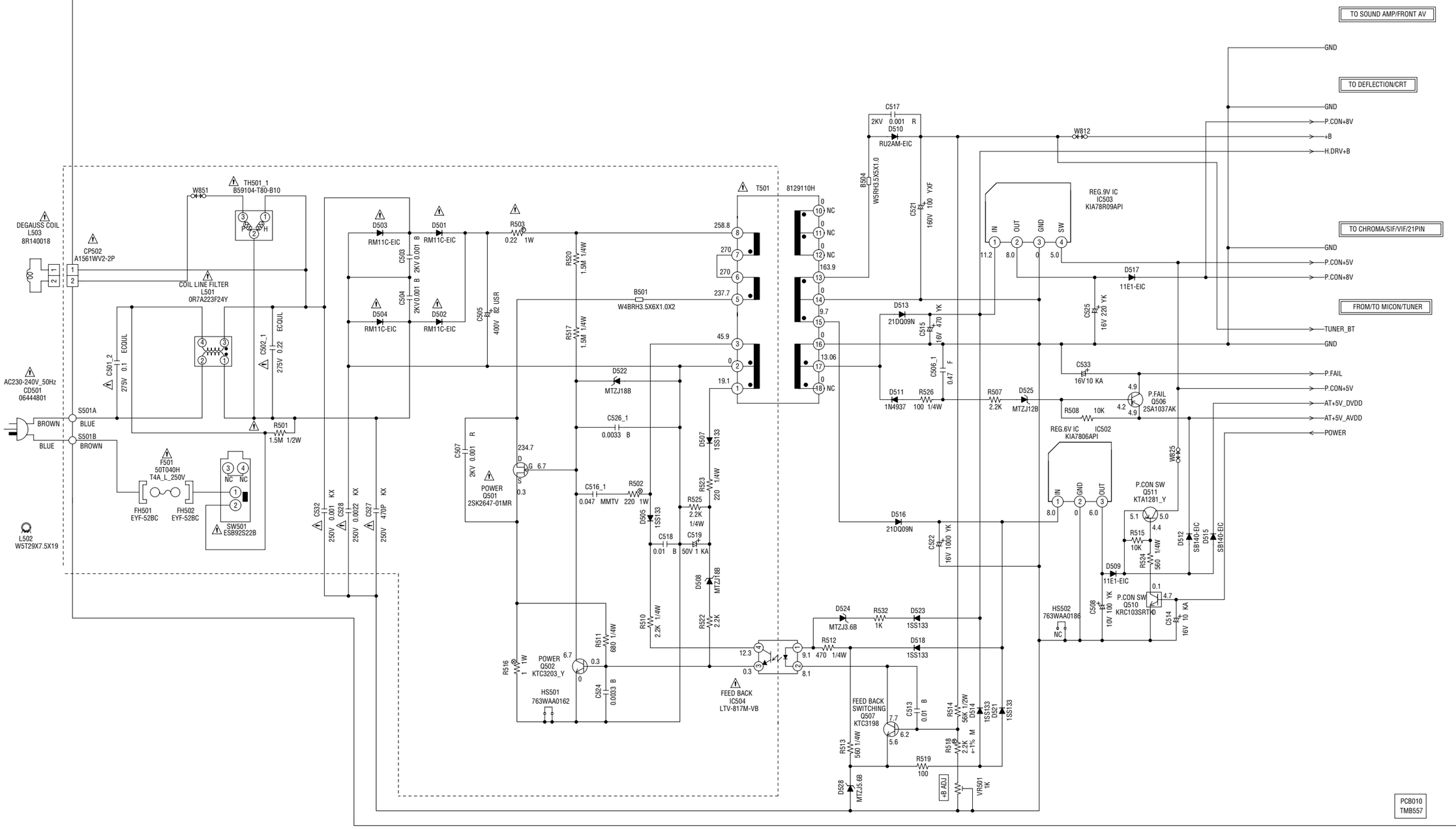
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY,USE ONES DESCRIBED IN PARTS LIST ONLY 。

CAUTION: DIGITAL TRANSISTOR



POWER SCHEMATIC DIAGRAM
(MAIN PCB)



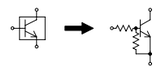
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

CAUTION: DIGITAL TRANSISTOR

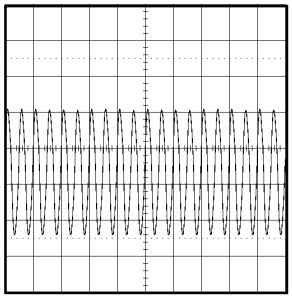


WAVEFORMS

MICON/TUNER

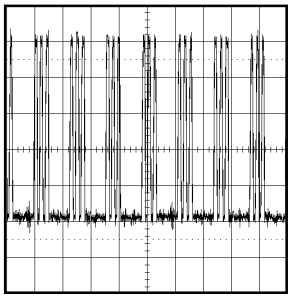
0.5µs
1.00V

1



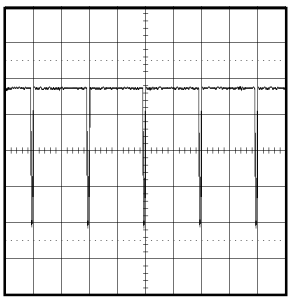
50µs
100mV

6



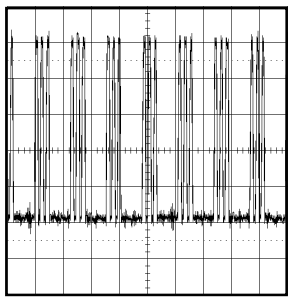
10ms
1.00V

2



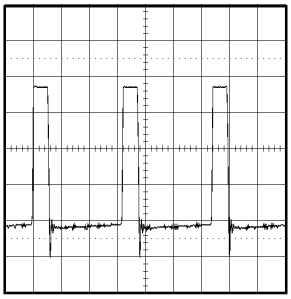
50µs
100mV

7



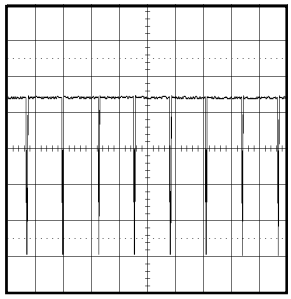
20µs
1.00V

3



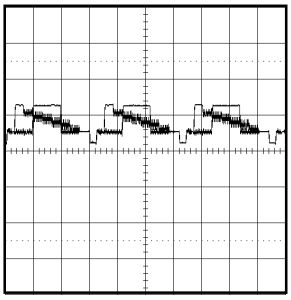
50µs
0.50V

8



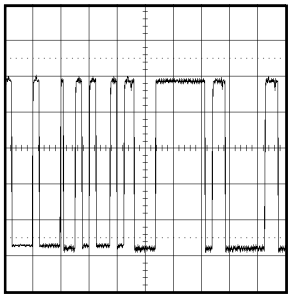
20µs
1.00V

4



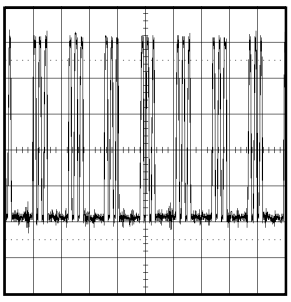
0.2ms
1.00V

9



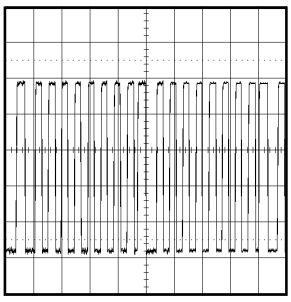
50µs
100mV

5



0.2ms
1.00V

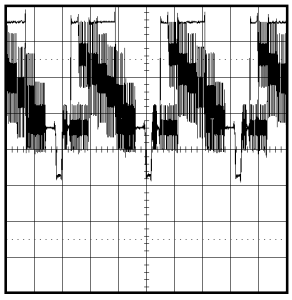
10



CHROMA/SIF/VIF/21PIN

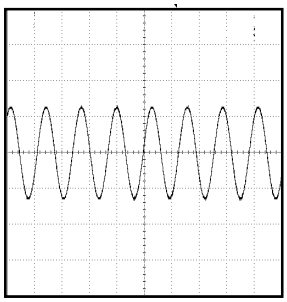
20µs
0.50V

11



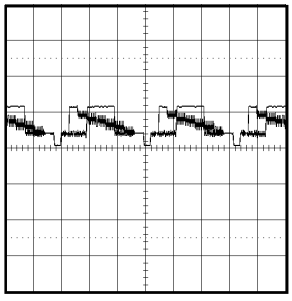
2ms
200mV

12



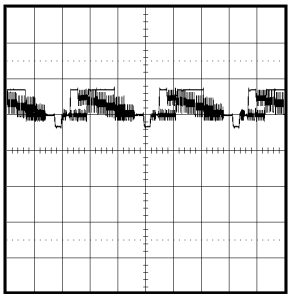
20µs
1.00V

13



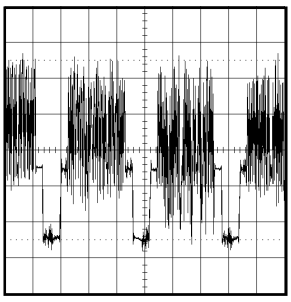
20µs
1.00V

14



20µs
100mV

16

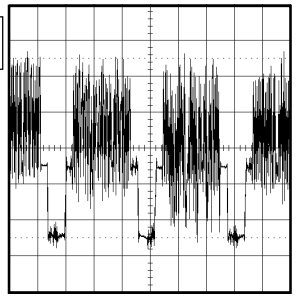


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

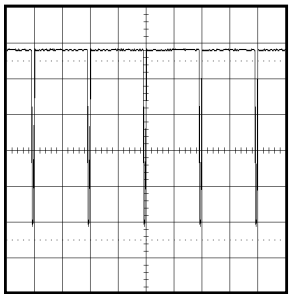
20µs
1.00V

17



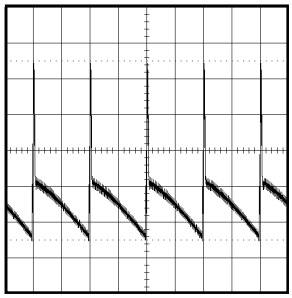
10ms
1.00V

23



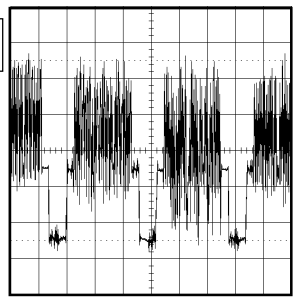
10ms
10.0V

35



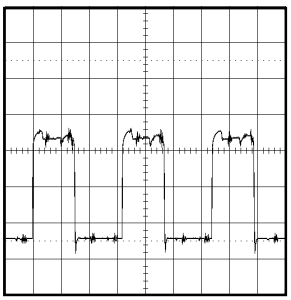
20µs
100mV

18



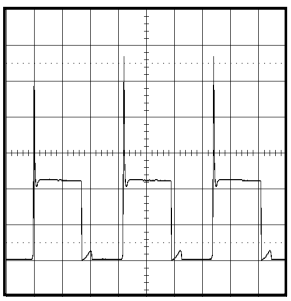
20µs
200mV

24



20µs
10.0V

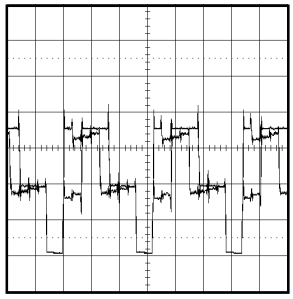
36



SOUND AMP/FRONT AV

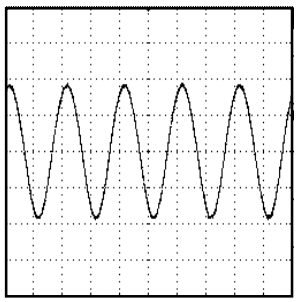
20µs
1.00V

19



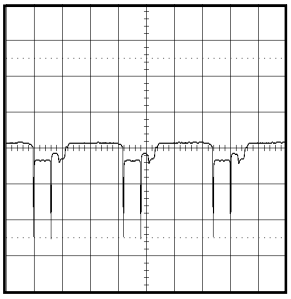
500us
500mV

29



20µs
5.0V

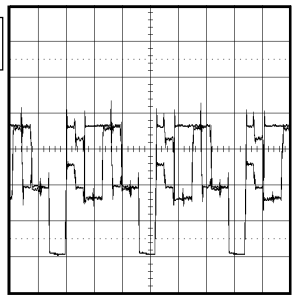
37



DEFLECTION/CRT

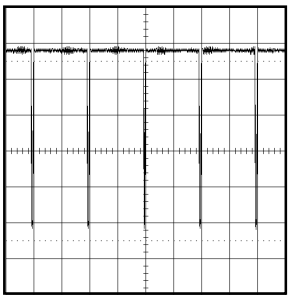
20µs
1.00V

20



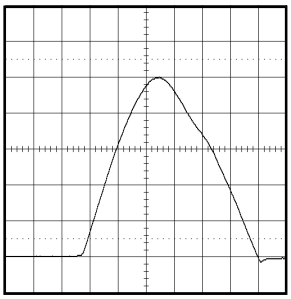
10ms
1.00V

33



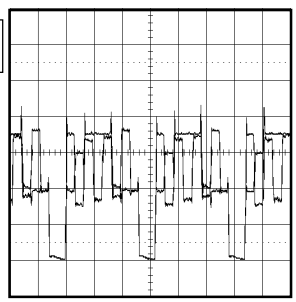
2µs
200V

38



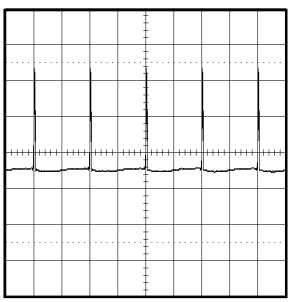
20µs
1.00V

21



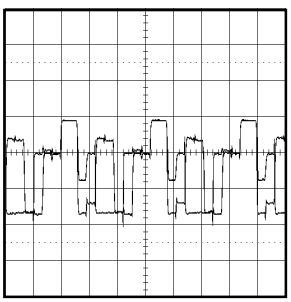
10ms
10.0V

34



20µs
50V

39

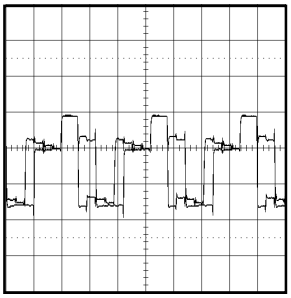


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

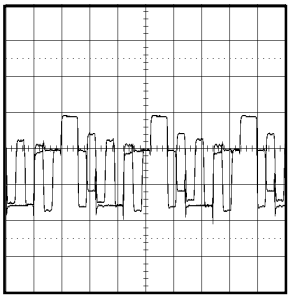
20µs
50V

(40)



20µs
50V

(41)



NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.